

Sustainable Technology-based Entrepreneurship for the Senegalese Market



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<http://atlantis.seidenberg.pace.edu/wiki/senegal>

Partnership



Pace University
<http://www.pace.edu>

SUNY Stony Brook
<http://www.sunysb.edu>

**NCNW – National Council
of Negro Women
WBC – Women Business
Center**
<http://www.ncnw.org>
<http://www.incubator-ncnw.org/>



NCNW

- National Council of Negro Women created in 1935 in the Us and established in Senegal in 1975
- <http://www.ncnw.org>
- <http://www.incubator-ncnw.org>
- Promotion of women entrepreneurship using ICT in Saint Louis
- Incubation of business in craft, art, textile and fashion
- Support in:
 - Training: computer, access to Internet, accounting, marketing, management, business plan
 - Business Coaching
 - Promotion of clients' products at fairs and business trips

Sponsorship

- NCIIA – National Council of Inventors and Innovators Agency



The Project

**Bootcamp in
January 2009**

English

**Community
building**

YOU

Technology

**Technology
Challenge**

Software Engineering

Sustainability



Data mining

Fun

Entrepreneurship

**Unknown
opportunities**

**NCNW/WB
C NGO**

**Social
Development**

Iphone 3G Launch on 7/11/2008

Soon in: Cameroun,
Centrafrique, Egypte,
Guinée Equatoriale,
Guinée
Buinée Bissau, Cote
D'ivoire, Kenya,
Madagascar, Mali,
Maurice, Niger,
Senegal





2006-2007

- Mobile phone sales > desktops/laptops sales
- Mobiles phones are easier to obtain than land lines in developing countries
- 3.3 billions users worldwide – 60% are in Africa
- Africa is the fastest growing mobile phone market in the world with 200 millions of mobile phone subscribers (more than 150% of growth a year in some countries)
- For every additional 10 mobile phones per 100 people the country GDP rises 0.5%
- 10%-15% of income spent on communications in developing countries
- 50% of the world population will have access to phones by 2015 – 2 handsets for each person alive

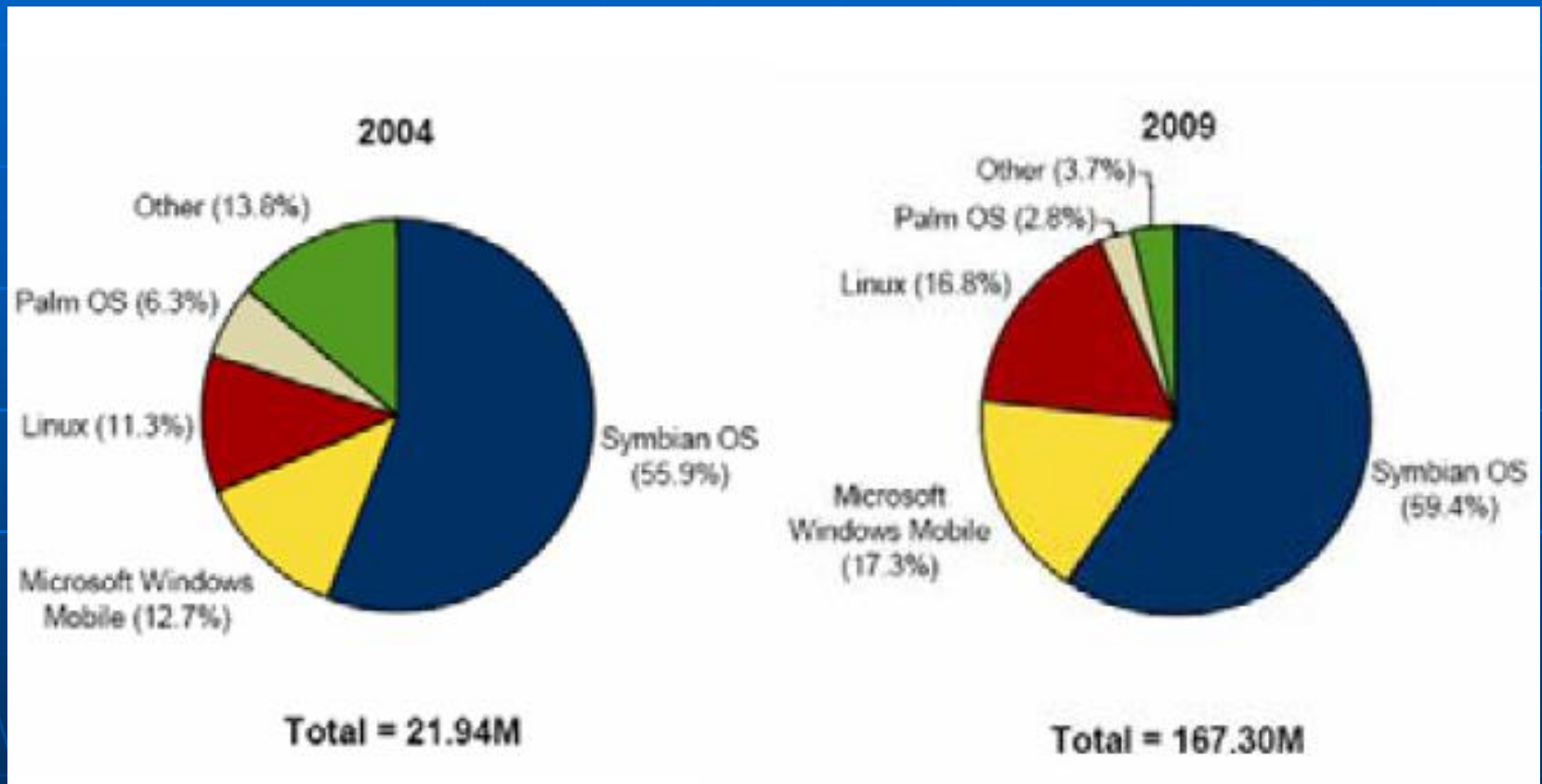
BUT ON THE OTHER SIDE

- 3.5% of the overall Internet users
- Limited Web presence
- Only 10,000 blogs (mainly in English and in South Africa)

Devices

- A wide variety of devices by the main vendors
 - E.g, Nokia, Motorola, Sony Ericson
- A wide variety of operating systems
 - E.g., Blackberry, Palm OS, Windows CE/Mobile, Symbian, motomagx, linux, MacOS
- A wide variety of development environments
 - E.g., Java ME, Qualcomm's BREW, Google' Android, JavaFX
- A wide variety of programming languages
 - Java, Python, Flash-lite, Objective C

Operating Systems



<http://mobiledevices.kom.aau.dk>

Opportunities for Developers



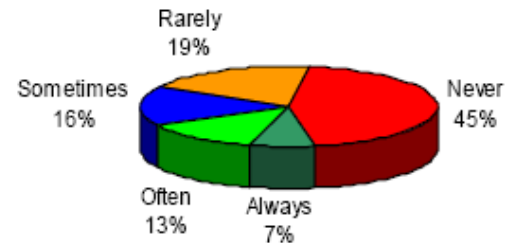
Users

Applications

Data

Phones = Computers

Actual Usage of Successfully Delivered Features





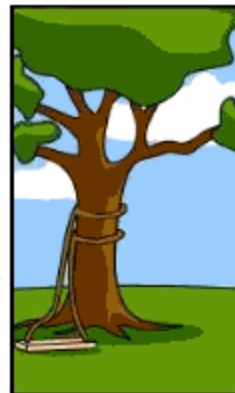
How the customer explained it



How the Project Leader understood it



How the Analyst designed it



How the Programmer wrote it



How the Business Consultant described it



How the project was documented



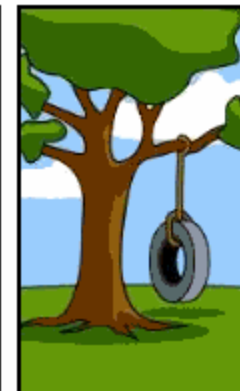
What operations installed



How the customer was billed



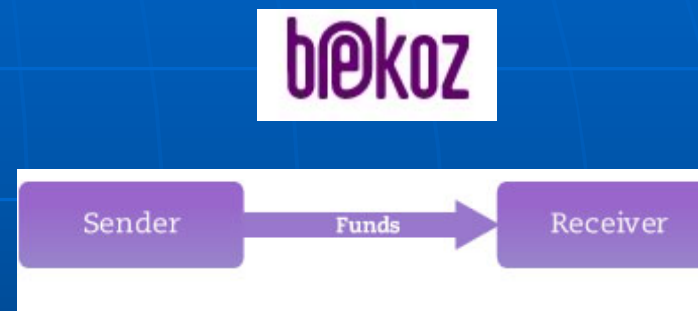
How it was supported



What the customer really needed

What is the Next Killer Usage or Application?

- Some examples for Africa
- Journalism (e.g., voices for Africa)
 - Airtime as information channel
- Money transfer (e.g., bekoz, mukuru)
 - Airtime as a currency
- Health sector (e.g., TB compliance)
 - Transfer of critical health data using mobile phone
 - Airtime as an incentive
- Trading (e.g., manobi)
 - Connecting sellers and buyers with necessary information about prices and crops
 - Airtime as a business value



What is the Next Killer Application?

- Mobile web
 - Access to the Internet using a mobile device
 - dotMobi (<http://mtd.mobi>) is a top-level domain dedicated to delivering the Internet to mobile devices
- Voice to text (e.g., Jott)
- Office tools (e.g., eoffice)
- Social networks
 - Micro-blogs (e.g., twitter, blogger)
- Location-based systems
 - GPS mobile phone navigation systems (e.g., Verizon VZ navigator)
 - Friendship support (e.g., dodgeball, mologogo)
 - People finder (e.g., Network in Motion)
- Games (e.g., Guitar Hero, Oregon Train, CSI)





Java

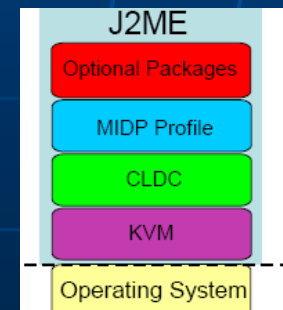


■ Market trends

- 80% of the mobile devices are Java compliant
- Lots of Java applications on the market
- Operators are developing Java services

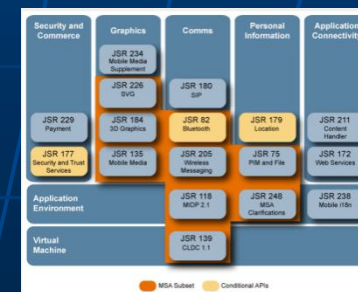
■ The Java platform is

- Safe – the code executes within the JVM
- Robustness – automated garbage collection prevents memory management
- Portability – a single executable can run on several devices
- Rich set of APIs

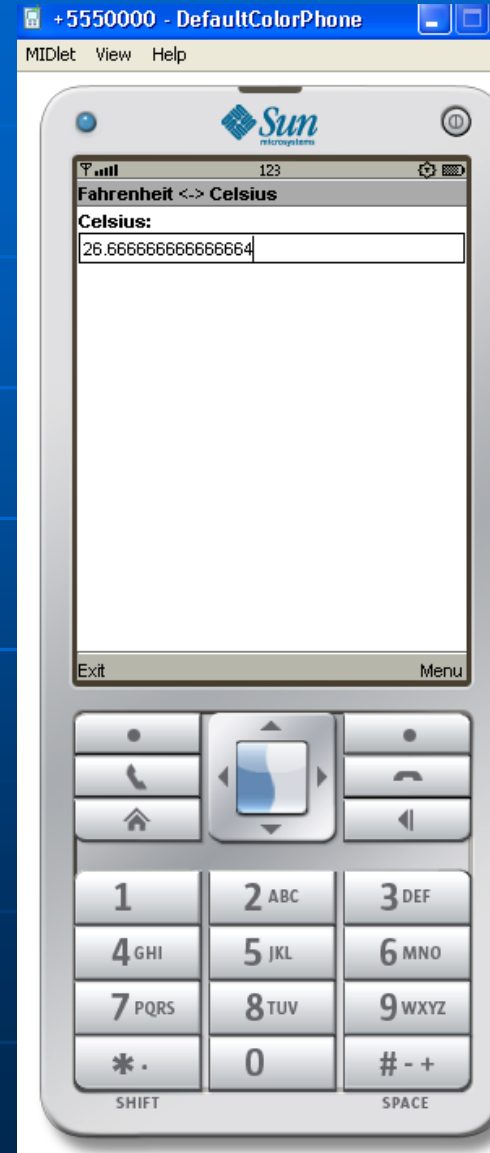
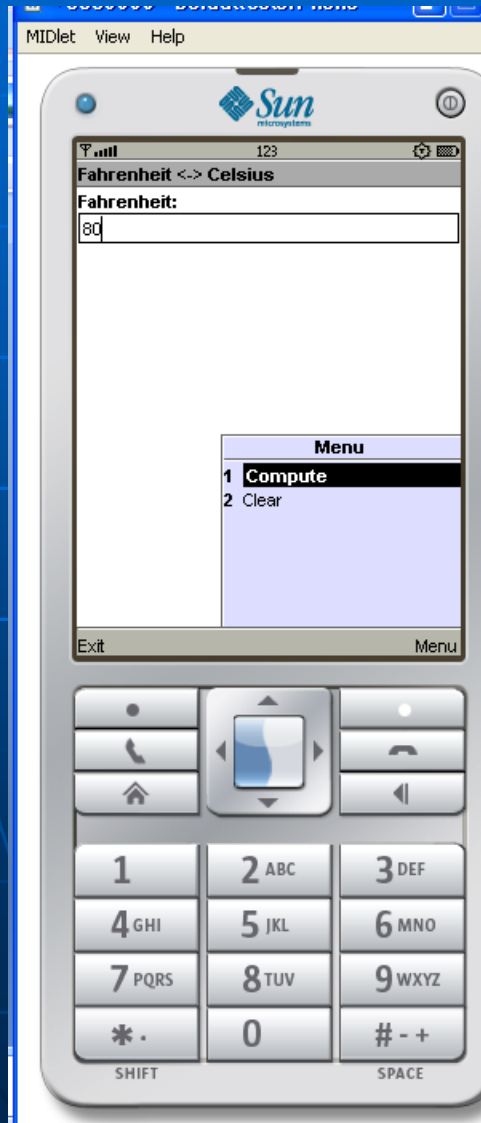


Fragmentation

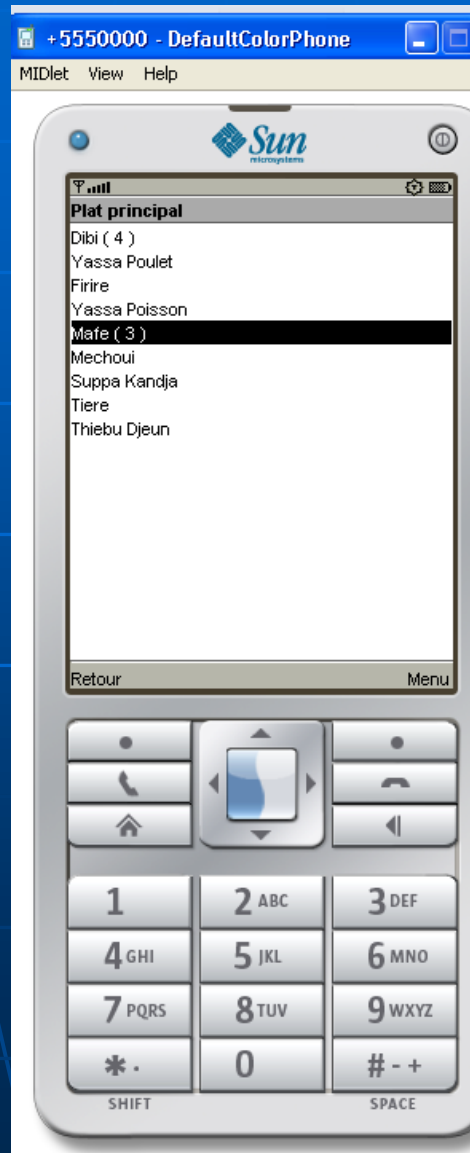
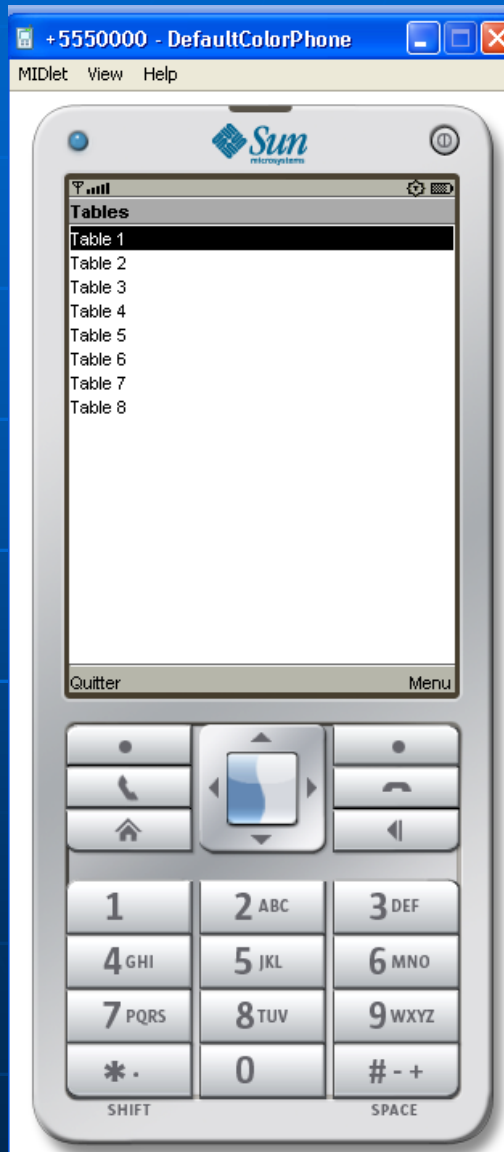
- Fragmentation is the inability to "write once and run anywhere" due to the multitude of vendor-specific and optional APIs
- Developing an application targeting n different devices required it to be tested on the n devices
- JTWI JSR 185 and MSA JSR 248 is one step to provide a comprehensive set of functionalities in a standard application development by clarifying and combining vendor-specific and optional APIs



Demo 1: Fahrenheit to Celsius



Demo 2: RestoOrder



BOOTCAMP

January 2009

<http://atlantis.seidenberg.pace.edu/wiki/senegal/Bootcamp>



BOOTCAMP ON MOBILE PHONE APPLICATIONS DEVELOPMENT AND WEB DESIGN FOR SENEGAL

WHERE: University of Thies

WHEN: January 2009

FACT SHEET

- iPhone3G available soon in Senegal
- Target of 10 million iPhones sales worldwide by the end of 2008
- Google phone to be launched in ...2008
- 70% of the world's mobile subscriptions – 250 millions – are in developing countries
- Only 3.5% of the 1 billion Internet users are in Africa
- Only 10,000 of the 36 million blogs are in Africa (mostly in South Africa and in English)

WANT TO...

- Learn and use cutting-edge technologies?
- Work as a goal-oriented team
- Unlock your potential?
- Catch new opportunities?
- Be an entrepreneur?
- Create a tech startup?
- Put Thies on the spotlight?
- Bridge the digital divide?
- Invest in sustainable development?
- Change the world?



HOW TO PARTICIPATE AND CONTRIBUTE TO THE BOOTCAMP TO JUMSTART TECH ENTREPRENEURSHIP IN SENEGAL?

Come to talk with us in English or French on Thursday, July 18th and Wednesday, July 23rd. Participants will be selected through a Tech Contest.

Check out our wiki at <http://atlantis.seidenberg.pace.edu/wiki/senegal>

Prizes to be awarded by expert judges:

- \$500 and pre-incubation opportunities by NCNW for the best mobile phone application
- \$500 and pre-incubation opportunities by NCNW for the best web site

SPONSORS:



1st THIES TECH CONTEST

August 2008 to January 2009

http://atlantis.seidenberg.pace.edu/wiki/senegal/Tech_Challenge



THE 1st THIES TECH CONTEST



WHERE: Online – Through emails and the Web

WHEN: From August 2008 to January 2009



WHAT IS THE THIES TECH CONTEST?

The Thies Tech Contest is a competition organized for the students of the University of Thies to explore Web 2.0 and cutting edge technologies, use them to tackle challenges and also have FUN! The students who will participate (limited to 30) will have to collaborate virtually as a community.

RULES

- The tech contest takes place online – through emails and the Web – from August 2008 to January 2009
- An email address is required to participate
- Each challenge (5-10 overall) will be announced by email and will have to be completed by the provided deadline
- There will be 3 winners. The winners will be selected based on the numbers of challenges they will complete and the time they will use
- Winners will have to complete at least 5 challenges

UP FOR THE CHALLENGE? HOW TO PARTICIPATE?

Send an email to thiestechchallenge2008@gmail.com with your first/last names and a picture... by August 1st. All the students of LGI and LMIO are welcome to participate!

Once approved, check the URL http://atlantis.seidenberg.pace.edu/wiki/senegal/tech_challenge for the latest information and your first challenge!

Prizes to be awarded in January 2009:

- 1st price: A Ipod Touch 8GB
- 2nd price: A Ipod Nano 4GB
- 3rd price: A Ipod Shuffle 1GB



SPONSORS:



URLS/EMAILS

■ NCNW

- <http://www.ncnw.org>
- <http://www.incubator-ncnw.org>

■ Project

- <http://atlantis.seidenberg.pace.edu/wiki/senegal>
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